

AMENDMENTS TO THE CLAIMS

1-18. (Canceled)

19. (Currently Amended) The system of claim ~~18~~ 23, wherein the first card includes an ASIC, which is configured to perform parallel-to-serial conversion on the data in the SONET/SDH format, thereby making the data suitable for transmission to the cross-connect card via the backplane.

20. (Currently amended) The system of claim ~~18~~ 23, wherein the second card includes an ASIC, which is configured to perform serial-to-parallel conversion on the data in the SONET/SDH format, the data being received from the cross-connect card via the backplane.

21-22. (Canceled)

23. (Currently Amended) ~~The A~~ system comprising:

a first card coupled to a first network compatible with a first data format, the first card being configured to convert data from the first data format to a synchronous optical network (SONET/SDH) format, and vice versa;

a second card coupled to a second network compatible with a second data format, the second card being configured to convert data in the second data format to the SONET/SDH format, and vice versa;

a cross-connect card configured to perform switching functions on data in the SONET/SDH format; and

a backplane communicatively connecting the first card, second card, and cross-connect card, the backplane being configured to use a common signaling scheme to carry data in the SONET/SDH format as one or more serial data signals between the first card, the cross-connect card, and the second card,

wherein the cross-connect card includes a first and second application specific integrated circuit (ASIC), each of the first and second ASICs being configured to perform parallel-to-serial conversion and serial-to-parallel conversion on data in the SONET/SDH format,

the first ASIC is configured to perform serial-to-parallel conversion on the data in the SONET/SDH format, the data being received from the first card via the backplane,

the second ASIC is configured to perform parallel-to-serial conversion on the data in the SONET/SDH format, thereby making the data suitable for transmission to the second card via the backplane, and

the cross-connect card further comprises a third ASIC configured to perform the switching functions on the data converted by the first ASIC, the switched data being sent to the second ASIC for conversion.

24-26. (Canceled)

27. (Currently Amended) The system of claim ~~17~~ 23, wherein the common signaling scheme utilizes differential pair signaling at a predetermined frequency.

28. (Currently Amended) The system of claim ~~17~~ 23, wherein the backplane includes a plurality of card slots, the first and second cards being plugged into respective ones of the plurality of card slots.

29. (Previously Presented) The system of claim 28, wherein the first and second cards are each interchangeable with a third card, the third card being coupled to a third network, thereby allowing the cross-connect card to perform switching functions with respect to the third network.